



Consulting Engineers & Scientists, Inc.

**THE EXPERT APPROACH
TO
FOOD PRODUCT LIABILITY
INFORMATION REGARDING FOOD
PRODUCT CONTAMINATION**

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FOOD PRODUCT LIABILITY

INTRODUCTION

There are many foodborne illnesses and injuries that are caused by ingesting contaminated foods produced by food manufacturers, restaurants, caterers, etc. These food products can produce illness or injury due to inadequate controls to prevent deleterious materials from being incorporated into the finished food products. It has been reported that there are approximately 5000 deaths a year caused by food poisoning. There are many more injuries both reported and unreported that are caused by unrelated and foreign material contaminating the food product as a result of processing and handling.

Foodborne illnesses and injuries have been reduced over the last few years because many of these food producers have adopted a program known as Hazard Analysis Critical Control Points or H.A.C.C.P. It basically means that a potential hazard, such as pathogenic organisms must be identified and methods must be implemented to prevent or destroy their incorporation into a food product. Food manufacturers, restaurants, and other type of food vendors who follow the basic food safety rules and standards are more likely than not to produce a food that is fit for human consumption.

It is a food manufacturer's or producer's legal responsibility to produce a food product that is fit for human consumption. Specific legal requirements can be found in the **United States Code of Federal Regulations: Title 21 Part 110-“Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food.”** The URL for this information is <http://www.cfsan.fda.gov/~lrd/cfr110.html>

If there are allegations that a food manufacturer produced a food material that was responsible for producing a sickness or an injury, an experienced food scientist can determine if the food process, food handling procedure, etc. was the cause of the sickness or injury. In addition, the food scientist can determine if the onset time was consistent with a specific pathogenic organism.

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FOOD PRODUCT CONTAMINATION

A food can be contaminated by different types of hazards: **Biological, Physical, and Chemical.**

- **Biological:** Pathogenic organisms (germs), insects, toxins from certain molds or bacteria, etc.
- **Physical:** Metal, glass, wood, plastic, etc.
- **Chemical:** Pesticides, preservatives, food colors, acidulates, etc.

HOW HAZARDS OCCUR IN FOODS

Incorrect operating procedures, improperly maintained equipment, lack of basic sanitary procedures, etc. may contribute to hazards entering a food product. The chart below gives you a few examples of the contamination problems that I have investigated:

<u>CHEMICAL</u>	<u>PHYSICAL</u>	<u>BIOLOGICAL</u>
Cleaning solution	Equipment not maintained	Air contamination
Incorrect weighing	Jars breaking	Cooling incorrectly
Spillage	Light bulbs not coated	Cross contamination
Storing improperly	No metal detectors	Heating incorrectly
Wrong additive	Not cleaning raw materials	Infected food handlers
Wrong label	Skids splintering	Poor storage temperature

INSPECTION OF FOOD MANUFACTURER

The sample analysis tells us if the product is contaminated. Once this is known, we have to find out how and where it became contaminated. The following are a few examples of what is to be done at an inspection to answer those questions:

- Check their preventative maintenance program
- Observe their personnel practices
- Perform a sanitation audit
- Question the food manager
- Review inspection reports made by regulatory agencies
- Review their manufacturing procedures
- Sample their raw materials, in-process, & finished goods
- Test the equipment for microbiological flora

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FOOD SCIENTIST ASSISTANCE FOR THE INVESTIGATION

- Assist in case strategy development
- Complaint review
- Conduct the analysis
- Document chain of custody
- Draw processing flow diagram
- Find source of the hazard
- Inspect the manufacturing facility
- Interpret laboratory reports
- Link cause & effect
- Obtain required samples
- Photograph evidence & facility
- Prepare a report
- Review medical records
- Review prior regulatory agency's inspection reports
- Store evidence
- Summarize case history
- Testify
- Translate scientific jargon into common terms

GUIDELINES FOR SAMPLING AND STORAGE

Sampling a product contaminated by a Biological Hazard – Place sample in a sterile plastic bag. Seal well.

Sample Storage - Must refrigerate below 40° F.

Sampling a product contaminated by a Physical Hazard – Handle it very carefully. Don't change its appearance.

Sample Storage – Place the sample in a container that is not made from the same material as the suspected contaminant. For example, if you think the contaminant is glass, **don't** store sample in a glass container.

Sampling a product contaminated by a Chemical Hazard – May need special equipment. Collection should be done by a qualified person.

Sample Storage – Put in a well sealed container.

ALL SAMPLE CONTAINERS ARE TO BE PROPERLY LABELED

Samples that are collected for testing or keeping as evidence must have the following information on the label:

- Date & time sampled
- Product identification
- Temperature that sample was stored
- Where sampling occurred
- Who performed sampling

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DISCOVERY SUGGESTIONS

The following is a partial list of documents and information that should be obtained through the discovery process:

- Environment exposures
- Food history
- Medical reports
- Onset time & duration of illness
- Symptoms presented

Obtaining the above information helps the food scientist to identify the specific type of foodborne illness. For example, knowing the onset time, i.e., the time between one eats a contaminated food and the time when the first symptoms appear, is the first step in determining if the foodborne illness is an infection or intoxication.

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FOOD HISTORY FORM

Patient: _____

Breakfast (list foods)

Date: _____ **Time:** _____

1	Place where meal was eaten?
2	Name _____
3	Address _____
4	City, State, Zip _____
5	
6	
7	Companion(s)?
8	Names: _____

Lunch (list foods)

1	Place where meal was eaten?
2	Name _____
3	Address _____
4	City, State, Zip _____
5	
6	
7	Companion(s)?
8	Names: _____

Dinner (list foods)

1	Place where meal was eaten?
2	Name _____
3	Address _____
4	City, State, Zip _____
5	
6	
7	Companion(s)?
8	Names: _____

Snacks (list foods)

1	Place where meal was eaten?
2	Name _____
3	Address _____
4	City, State, Zip _____
5	
6	
7	Companion(s)?
8	Names: _____

The information presented in this booklet is intended only to be used as a guide in assisting clients concerned with or involved in the legal process where litigation or potential litigation is an issue. The information is further intended to inform clients that Consulting Engineers & Scientists, Inc. has both the expertise and the capability to provide direction and guidance in the specific disciplines and areas presented in this booklet. It is important to note that the information also is general and is not intended to completely cover the specific nuances of a particular matter. If there are any questions concerning this information, please feel free to contact us.